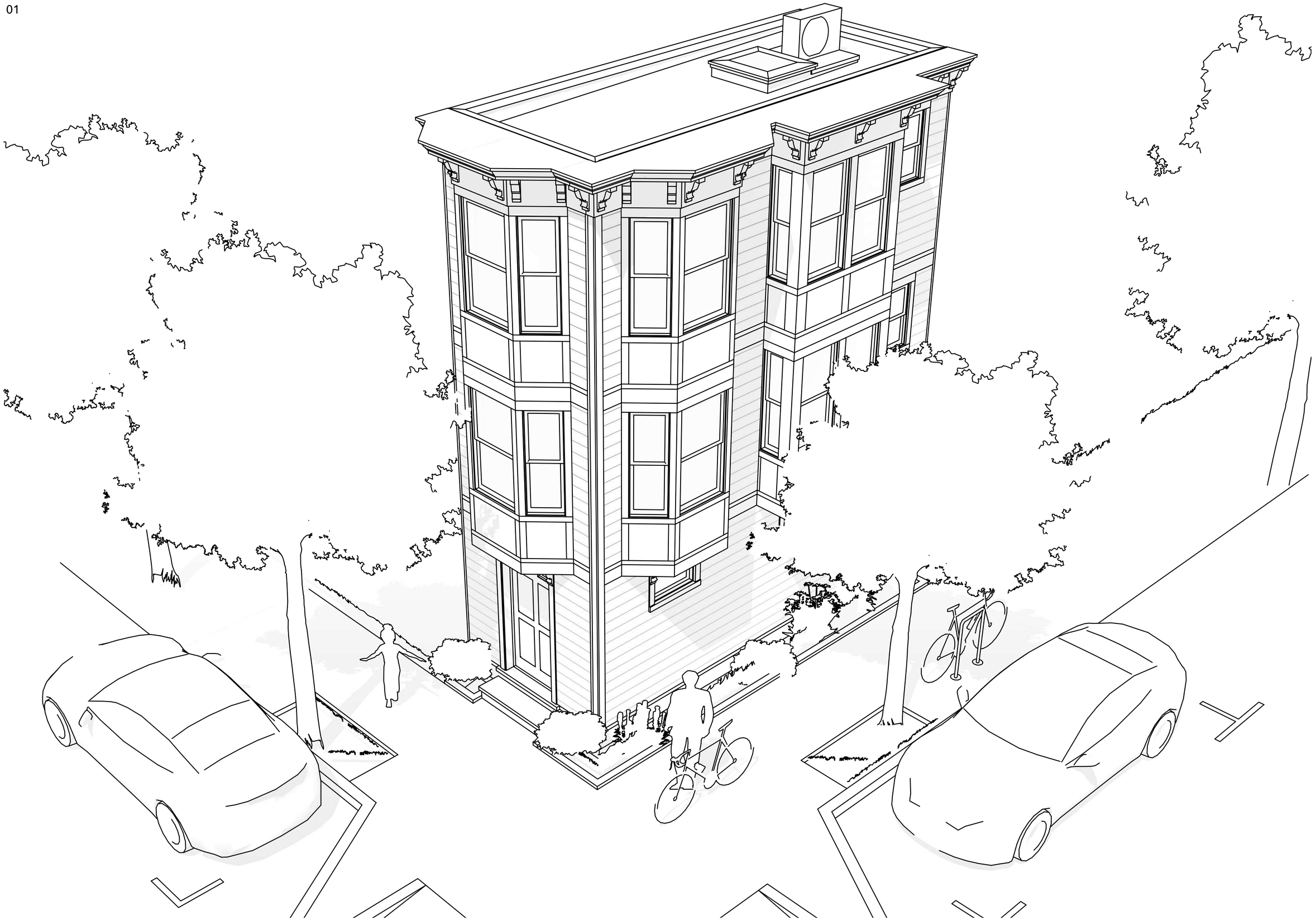


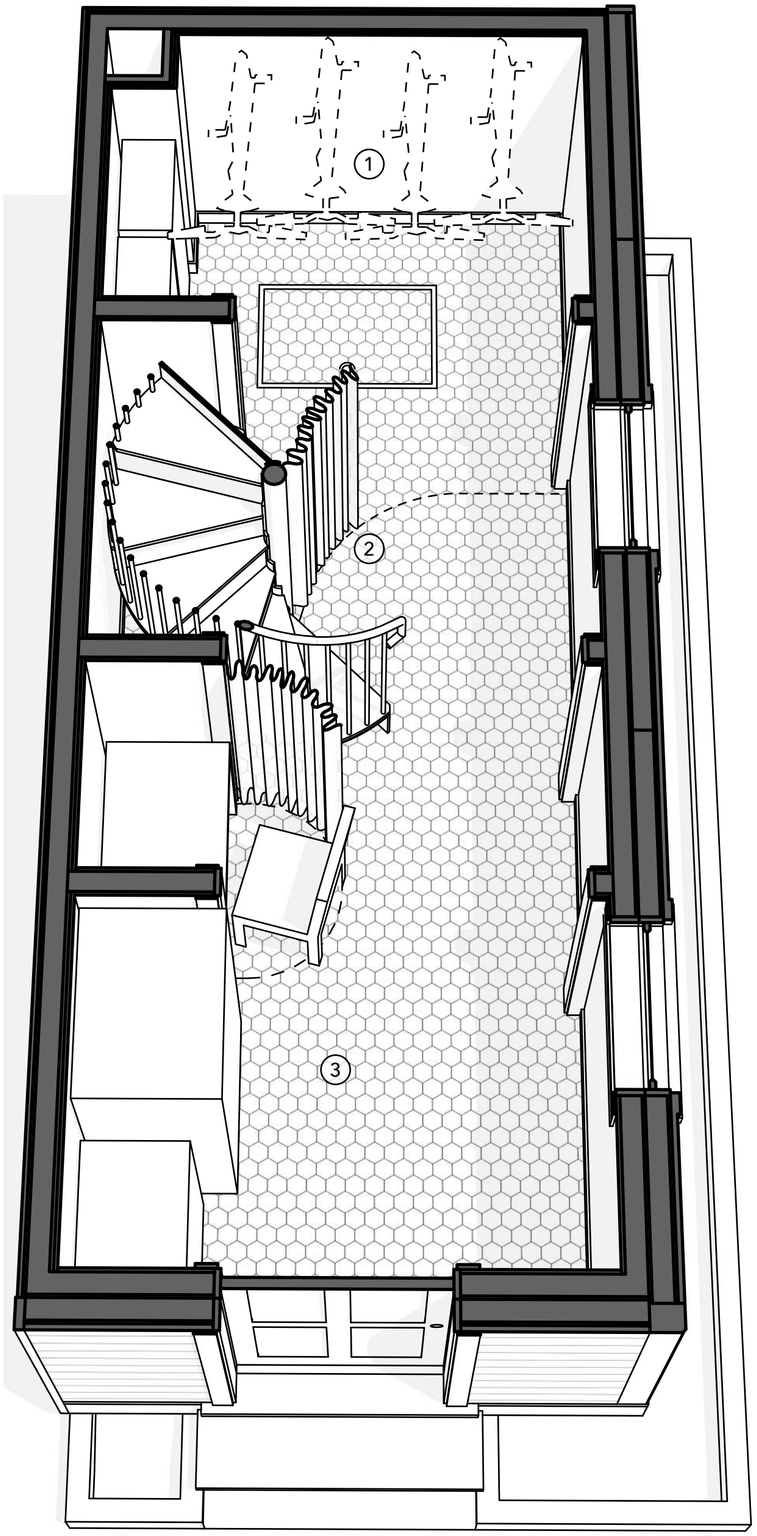
With a footprint as small as a parking spot, this tiny townhouse makes a statement. For a single person or a couple, it demonstrates a better alternative to car-focused megadevelopments. This is designed as a protest against the land-use zoning which banned small homes and prioritized cars over human beings. Zoning made modern suburbs worse than old towns. We can do better by learning from the past.

BICYCLE TOWNHOUSE

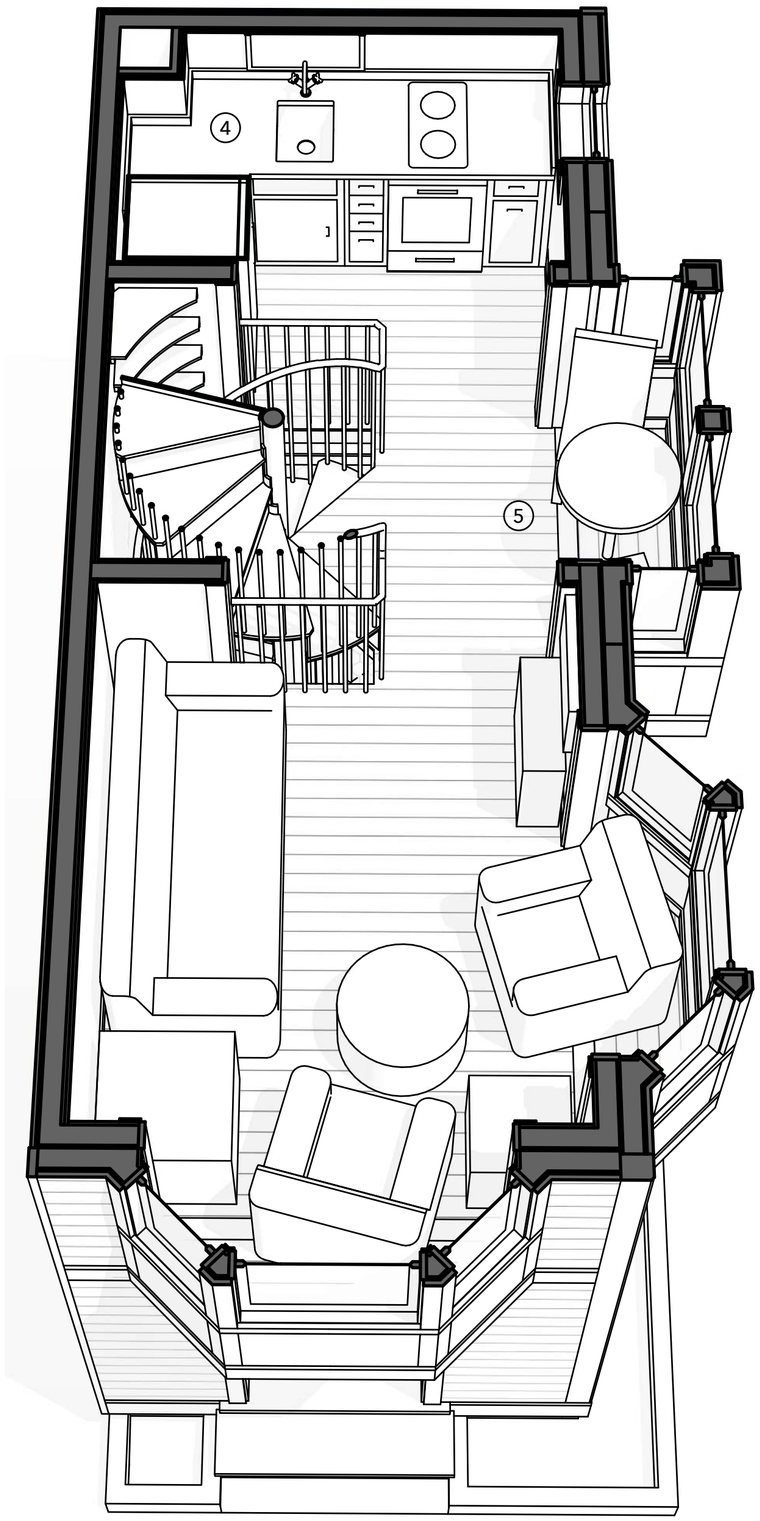
PROJECT OVERVIEW

A DESIGN BY JAY OSBORNE

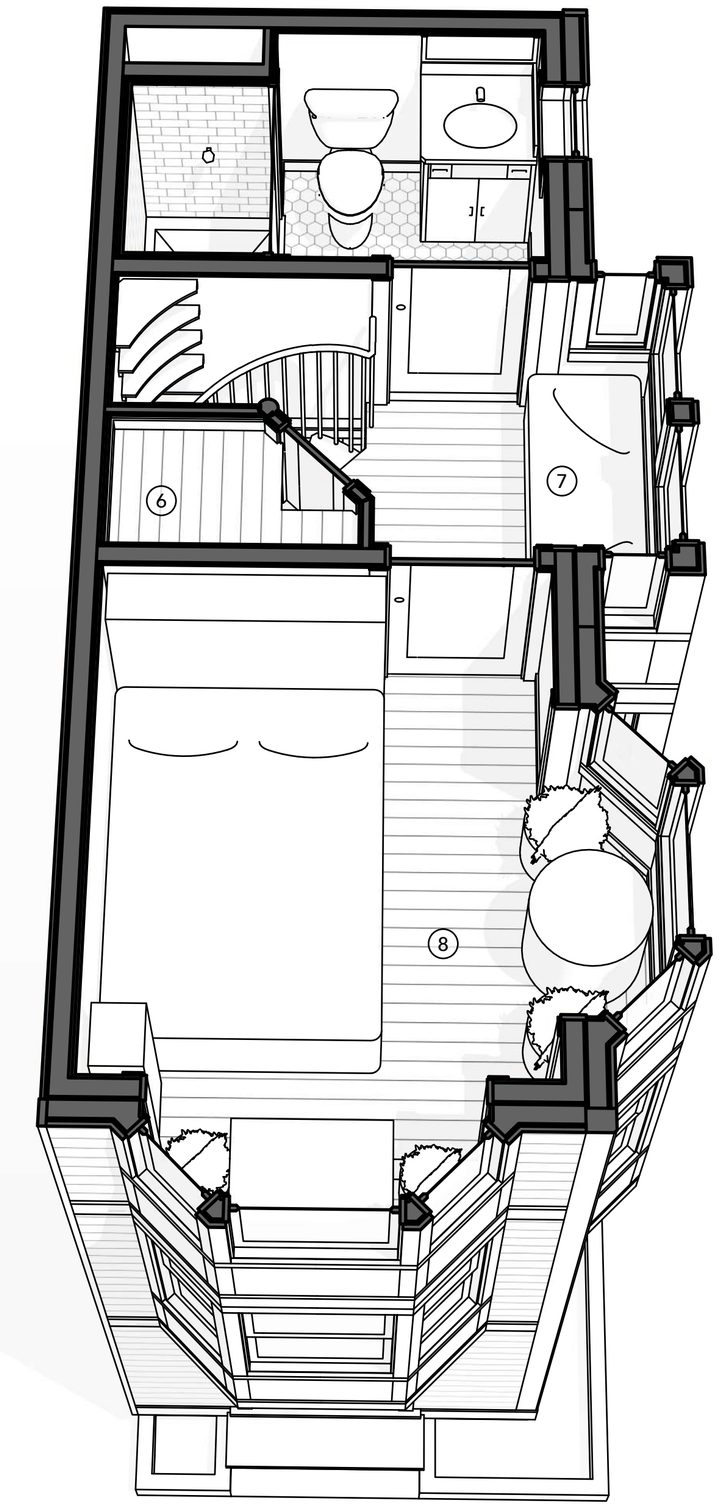
Building on a small footprint led to other related decisions. For instance, the house is designed for offsite manufacturing. It can be quickly assembled onsite as three boxes and a series of facade panels. The boxes are the size of shipping containers, so they can be moved down normal roads without special permits. This tiny townhouse pushes all practical size limits, and tests new possibilities.



1ST FLOOR: ENTRY & STORAGE



2ND FLOOR: LIVING AREAS



3RD FLOOR: PRIVATE AREAS

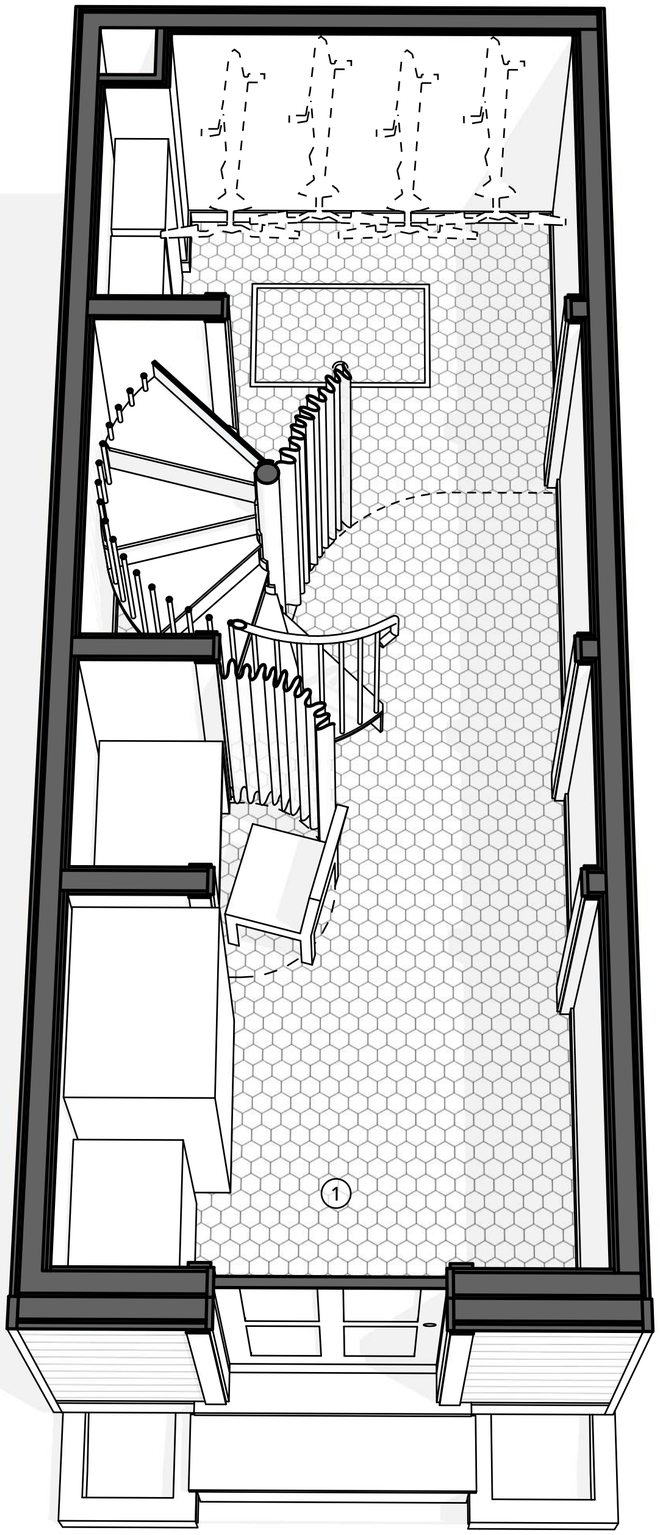
This house is designed for both “Bookend” and “Bounded” variations (see also next page). In each, a spiral staircase connects the three levels in a most spatially-efficient way. **(1)** The bottom level has the entry and service functions, including a bike storage area. **(2)** Curtains hide the messy areas so visitors won’t see them. **(3)** The entry area is open and flexible, using a wardrobe instead of a closet.

BICYCLE TOWNHOUSE

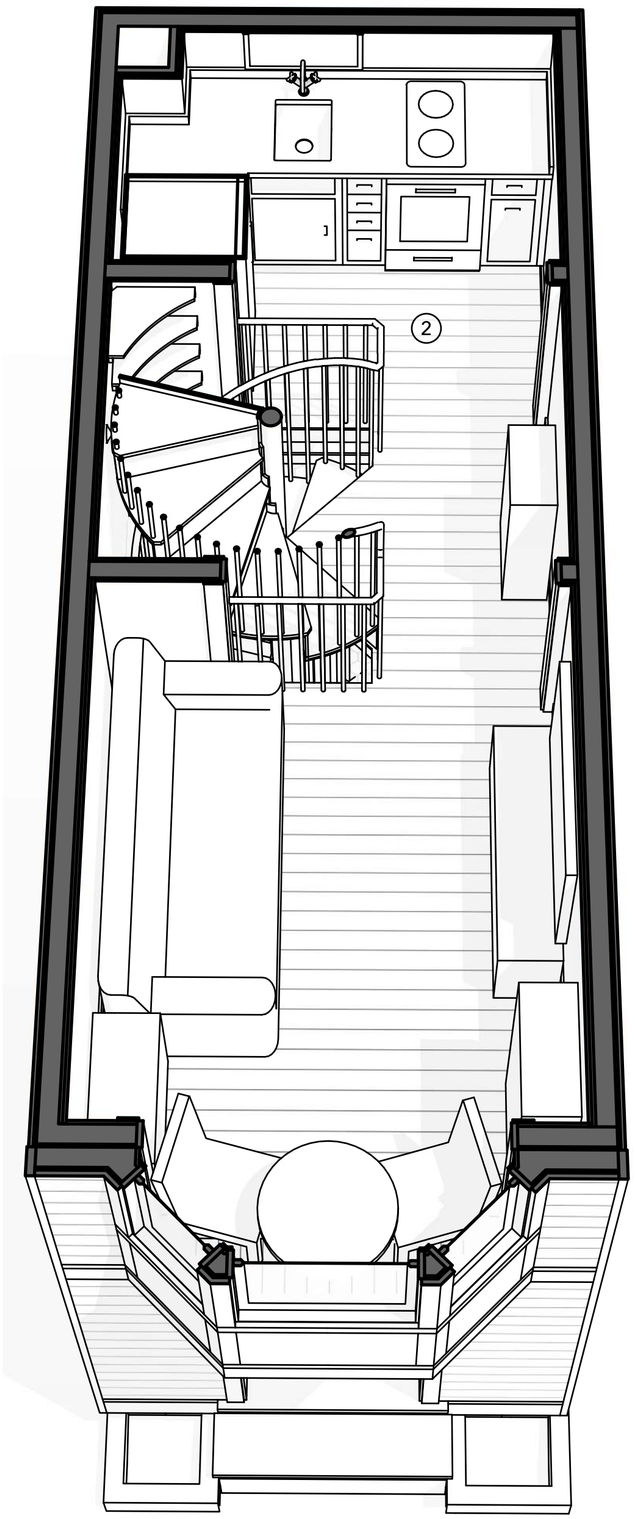
BOOKEND VARIATION

A DESIGN BY JAY OSBORNE

(4) Utility functions, like the kitchen and bathroom, are stacked. **(5)** A cafe table in a bay window. **(6)** A closet is built at the top of the stairs, on a raised platform. **(7)** A chest in this bay window would also make a delightful window seat. Add some pillows. **(8)** This may feel like a treehouse. This bookend unit has many bay windows, but will feel more private since the rooms are raised above the street.



1ST FLOOR: ENTRY & STORAGE



2ND FLOOR: LIVING AREAS

3RD FLOOR: PRIVATE AREAS

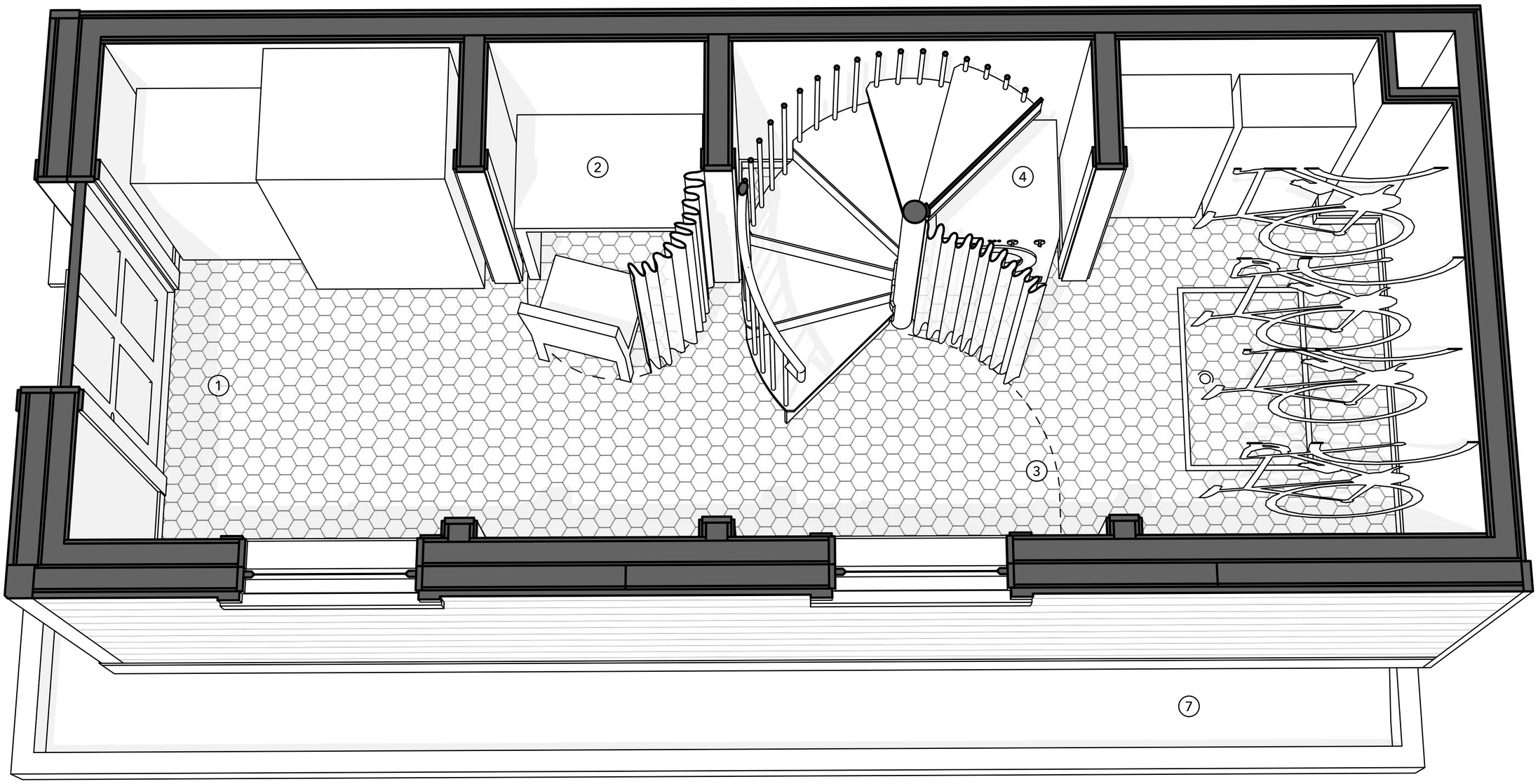
While this design focuses on the "Bookend" unit of the Bicycle Townhouse, it's also designed to work as this "Bounded" variation. I may be inventing that term, but it's for a townhouse that is flanked with other buildings on each side. Such a variation is harder to design because it needs to consider daylight and natural ventilation. With a large window on only one side, this house can't be too deep.

BICYCLE TOWNHOUSE

BOUNDED VARIATION

A DESIGN BY JAY OSBORNE

(1) The first floor is much darker than in the Bookend variation. The front door can be all glass. **(2)** The kitchen and bathroom are deep in the back. A skylight pours sunlight down the stairwell, so these spaces will feel better. To improve lighting and openness, put mirrors on the walls. **(3)** With only one bay window, the bedroom and living room are both as small as they're allowed to be by code.



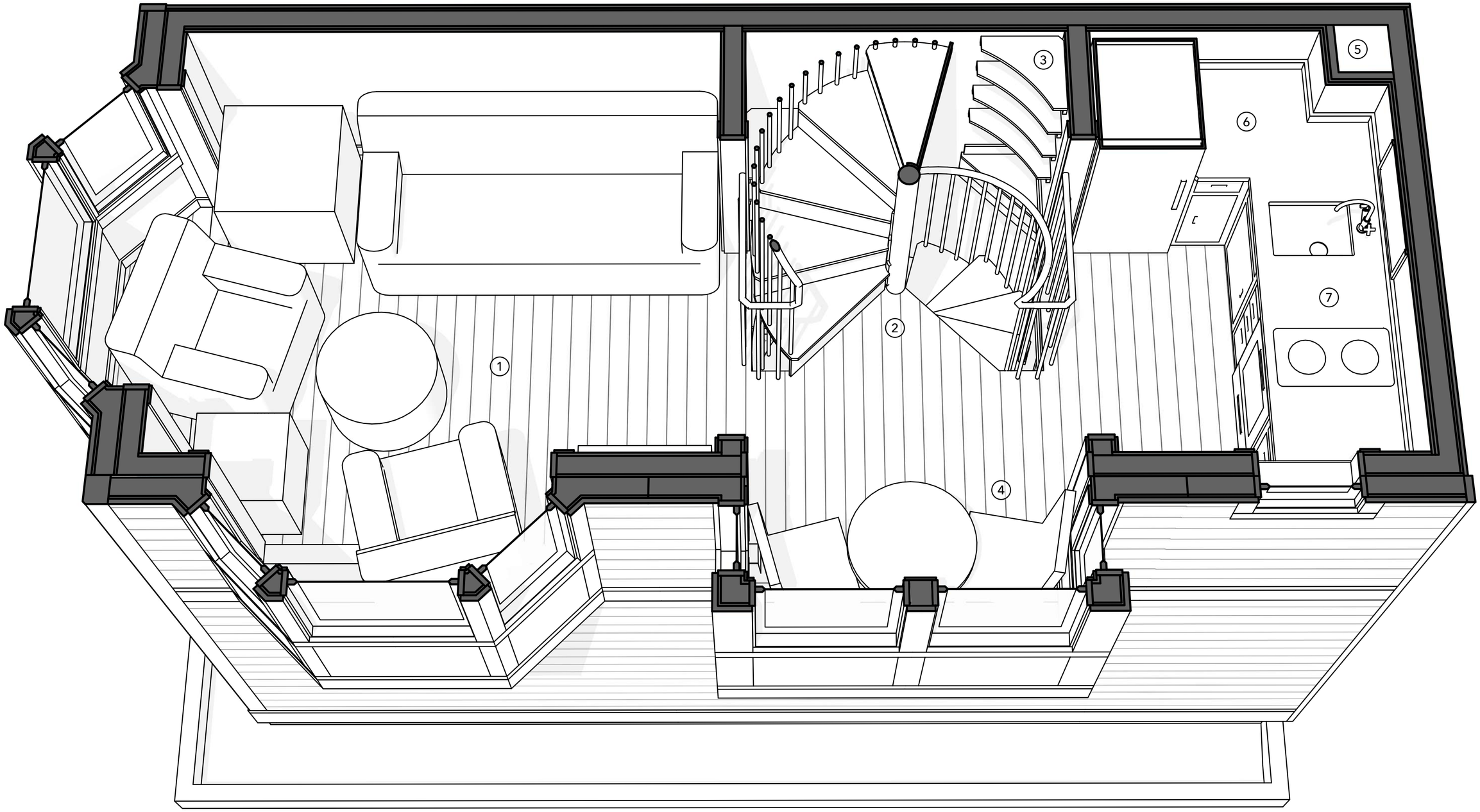
(1) A house only needs one entry door by code. This entry area is fairly open because it will need space for maneuvering bikes. **(2)** A curtained alcove could be used for many things, but here it shows a desk. Because desks can be messy, the curtain lets you hide things quickly, and without the awkwardness of hinged doors in small spaces. **(3)** Curtains can be easily made with curved ceiling tracks.

BICYCLE TOWNHOUSE

FIRST LEVEL

A DESIGN BY JAY OSBORNE

Curtains also muffle any noises. **(4)** A washer dryer combo fits well under the stairs. If you want a stacked laundry machine, it can go where the desk is. **(5)** Wall racks allow up to four bikes. This space may instead hold a small motorcycle or moped. **(6)** At the first level, high windows and a planting strip helps to increase privacy from the street. **(7)** A small planting strip can include a trellis up the wall.



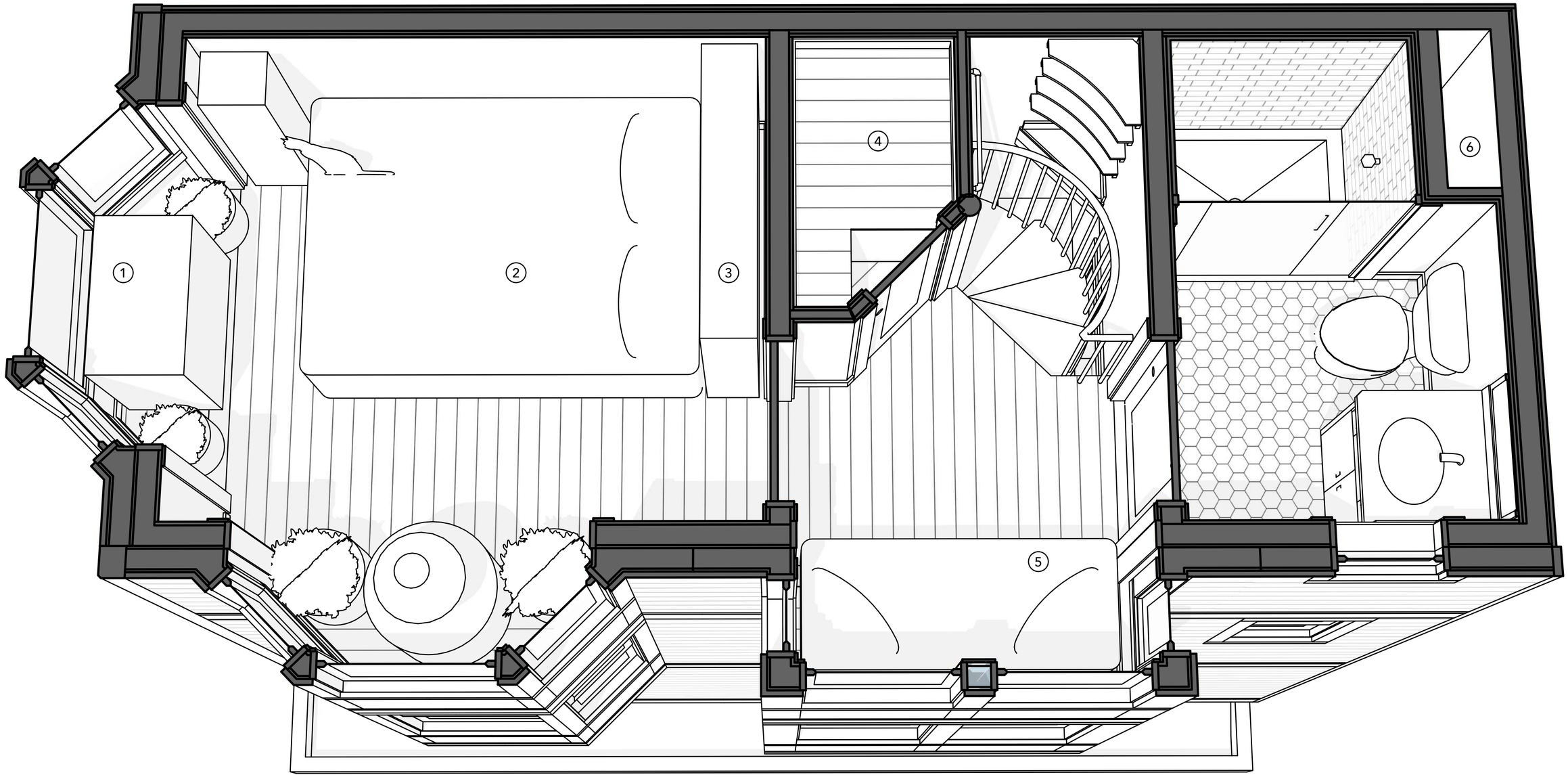
(1) Despite the many windows, this raised living area will feel removed from the street. Level changes aid privacy. The windows can also have curtains or louvered interior shutters at the lower sashes. **(2)** The spiral staircase is as small as possible by code. No other staircase is as spatially efficient. **(3)** The corner spaces at the staircase are given to shelves. They can be for books, photos, knickknacks, etc.

BICYCLE TOWNHOUSE

SECOND LEVEL

A DESIGN BY JAY OSBORNE

(4) Like your own personal coffee shop, this small table fits well in a bay window. **(5)** The corner of the house is given to a utility chase that goes up all three floors. **(6)** This back corner would be a good place for waste bins. With perhaps a hole or two at the countertop. **(7)** For more countertop area at this tiny kitchenette, you can use an induction cooktop. The fixtures shown here are apartment-sized.



(1) For emergency exiting reasons, the bedroom windows can't be any smaller or lower to the floor. The lower sashes could be covered with curtains for privacy. **(2)** A full/double bed is fine for one person or a young couple. Since it will be the most difficult item of furniture to move, you may need a memory foam mattress. **(3)** Headboard storage would be appropriate in this minimally-sized bedroom.

BICYCLE TOWNHOUSE

SECOND LEVEL

A DESIGN BY JAY OSBORNE

(4) Bedrooms rarely need closets by code (contrary to popular belief), but it's good to provide space for bulky storage. It will require raised platforms to allow for the minimum stairway head clearance. **(5)** The chest has a pad to make it a window seat, which is also convenient for a dressing area. **(6)** The utility chase makes it easier to connect the pipes during in the modular assembly process.

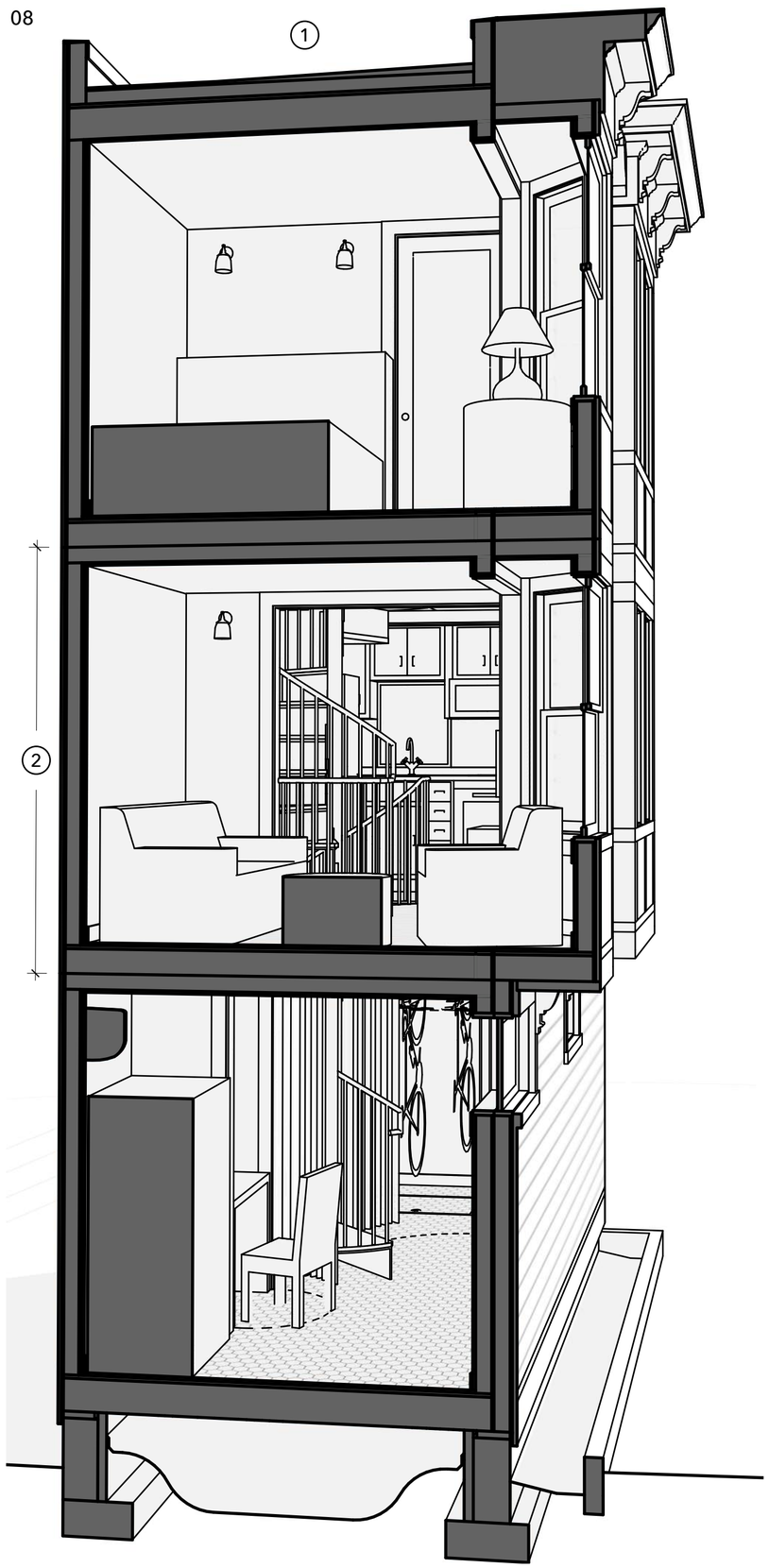
Though three stories tall, this house is only as tall as a normal 2-story building. If your street has a tall blank wall– like those of bland modernist buildings– this house could cover it, enlivening the street. It could be called an “anti-setback house” (my term) which fills in the wasted space mandated by modern zoning. Old communities were good at filling in the gaps with incremental growth.

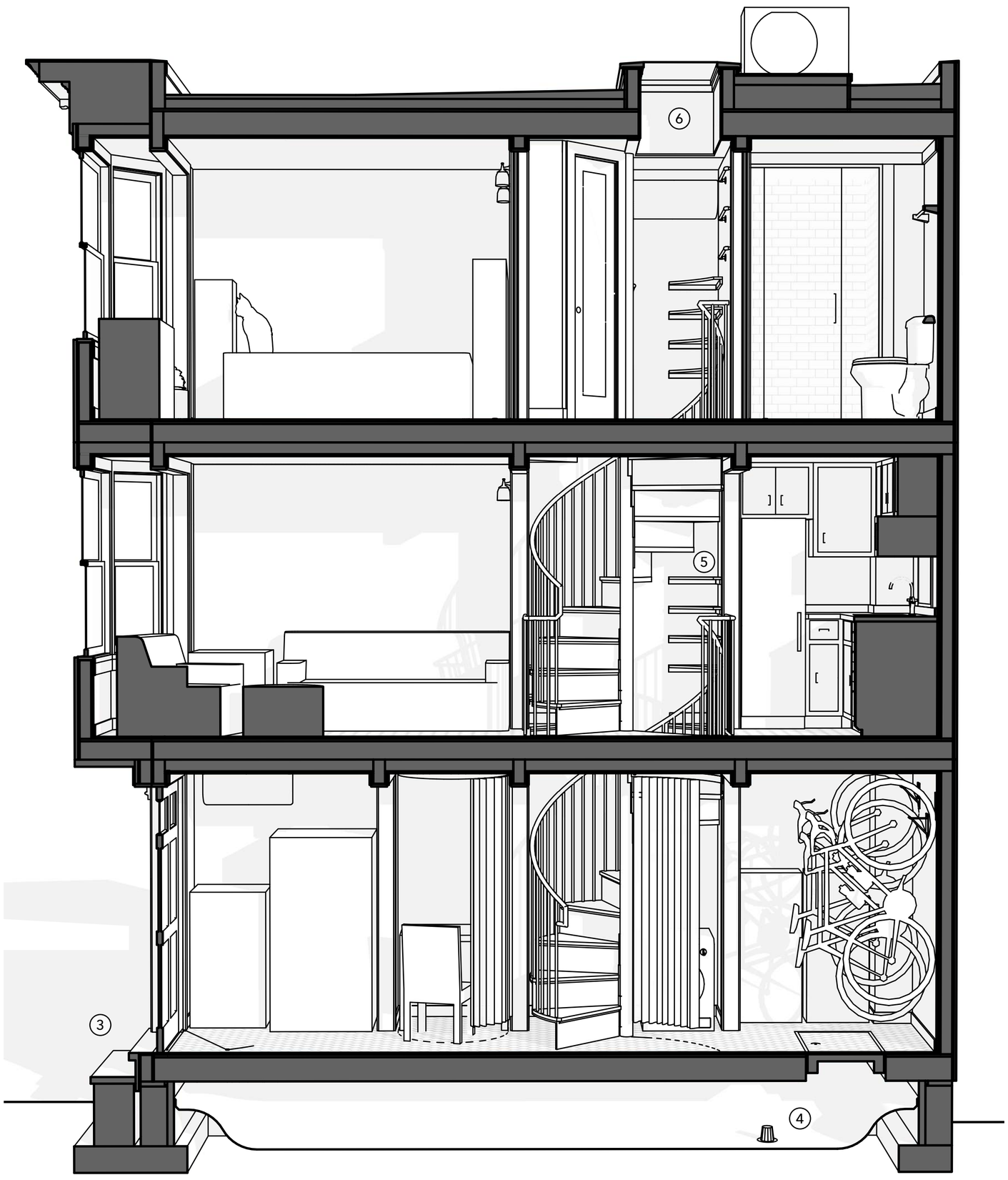
BICYCLE TOWNHOUSE

FRONT OF THE HOUSE

A DESIGN BY JAY OSBORNE

(1) You can give back to the street using a thin planting strip around the house. It takes little to soften a sidewalk-wall transition, to make streets more pleasant. **(2)** The first-floor windows are high enough for privacy, yet low enough for you to peer out. **(3)** Ornament here is simple, but it can be more elaborate, like a San Francisco Victorian. Even a small house can be made stunningly beautiful.





(1) To make the house as short as possible, each level has 7′ ceilings (the code minimum) and a low-slope roof hides behind a small cornice/parapet. Low ceilings also make the spiral stairs as efficient as possible. (And easier to climb.) **(2)** The house is designed for offsite construction. Each level is a box with a floor and ceiling. The boxes are stacked onsite and then facade panels are bolted on.

BICYCLE TOWNHOUSE

SECTION CUTS

A DESIGN BY JAY OSBORNE

(3) For the house to have a modular assembly and a simple foundation, the front door has a step. If the drop were higher, it would need another step and landing. **(4)** Crawlspace access is through a floor hatch. A depression provides height for maintenance work. It requires a drain. **(5)** The shelf spacing alludes to the stairs. **(6)** The skylight is also the roof access door. It shoots sunlight down the stairwell.